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ABSTRACT OF THE DISCLOSURE

The present invention provides a vertebrate translation initiation factor (eIF-4AIII), that plays a role in the differentiation of an embryonic cell to an epidermal cell. This translation initiation factor interacts with BMP-4 in a positive regulatory loop. The nucleic acid and amino acid sequences are also disclosed. Also disclosed are methods of using the translation initiation factor, nucleic acids encoding the same, and corresponding antibodies and the like.